

Decommissioning and Demolition (D&D)

D&D is a major emphasis at the Savannah River Site. Under the Department of Energy's cleanup initiative, reducing the site footprint is a high priority.

By the end of Washington Savannah River Company's contract, which expired in November 2006, 247 buildings had been demolished. Across the site, there are about 6,000 buildings, encompassing about 10 million square feet. D&D work is expected to continue until about 2025.

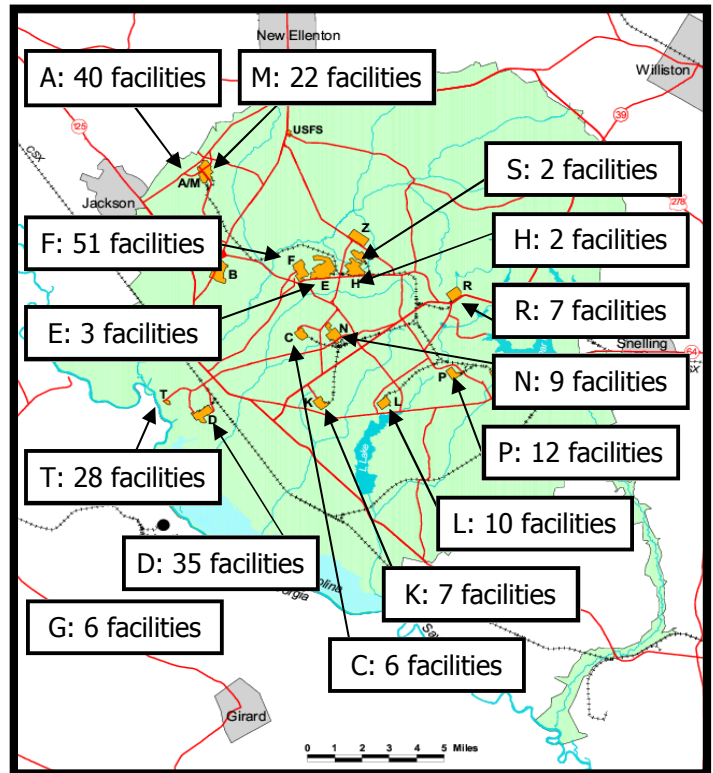
D&D does not necessarily mean demolition. For some buildings, a more sensible, safe solution is in-situ decommissioning, or entombment. The D&D process involves determining what the best end state is for any given facility, and achieving that end state in a safe, efficient manner.

M Area

Historically, M Area was the beginning of the SRS production process. Here, facilities produced materials for use in SRS reactors. The only radiological contamination in the area comes from the uranium that was used to make reactor fuels. Other contamination comes from solvents that were used in the process. All operations have been shut down since the late 1980s.



M Area, as it looked in late 2005.



By the end of 2006, all 22 M Area buildings had been completed, including two A Area buildings that were physically in the closure area. These were completed in spring 2006.

T Area

T Area, also known as TNX, is a research and development area built near the Savannah River in 1950. It was the site's oldest operational area.

Historically, equipment was brought to SRS by barge. The equipment was inspected and tested in T Area, then sent on to other site areas for installation.

The TNX Area was an industrial facility where pilot-scale testing and chemical

Facilities For D&D

Area	Planned in Contract Period	Completed in Contract Period
A	40	37
C	6	5
D	35	34
E	3	3
F	51	30
G	6	6
H	2	1
K	7	4
L	10	5
M	22	22
N	9	5
P	12	9
R	7	3
S	2	0
T	28	28
Total	247	247

process evaluations were done to support fuel and target manufacturing, separations areas, chemical processes and the Defense Waste Processing Facility (DWPF). T Area was one of several heavy D&D emphasis areas because of its proximity to the Savannah River, near the edge of SRS.

Contamination in T Area came from a small amount of uranyl nitrate, which poses no ultimate human health concerns; chlorinated volatile organic compounds, predominantly trichloroethylene (TCE), tetrachloroethylene (PCE), and carbon tetrachloride; uranium; and radium-226. SRS, the U.S. Environmental



T Area, as it appeared after final closure in late 2006.

Protection Agency (USEPA) and the South Carolina Department of Health and Environmental Control (SCDHEC) have agreed to cleanup paths, which were completed in late 2006.



D Area, as it appeared in 2005. The circled building was the last remaining demolished

results of operations of the coal-fired power plant, and non-hazardous materials such as metal, treated lumber, roofing materials, and asphalt paving materials.

D Area

D Area is located only a few hundred yards from T Area. The function of D Area's facilities was to extract heavy water from the Savannah River for use in SRS reactors.

The last building, which contained the only remaining distillation towers, was completed in summer 2006. D&D work in D Area consisted of 35 facilities, covering about 45,000 square feet.

The area also includes a power plant, which will remain in service.

Contamination in the area includes tritium and mercury, as well as the

F Area

F Area, located near the center of SRS, is also an area of D&D focus. Facilities here operated for more than 50 years, and planned operations are now complete.

F Canyon is one of the site's two chemical separations areas. Historically, it extracted plutonium from spent nuclear fuel. FB Line refined the plutonium into buttons for the national defense. The facilities used a PUREX (plutonium and uranium extraction) process.

PUREX operations were completed in both facilities in 2002. Since operations concluded, work has been ongoing to close obsolete systems that haven't been used in decades, empty and flush vessels, demolish excess facilities, and wind up scheduled operations.

In FB Line, work concentrated on stabilizing and packaging plutonium materials for long-term storage, under specific DOE standards. In early 2005, the last of the plutonium materials were removed from FB Line. By the end of the year, significant strides had been made in deactivation.



The 709-F fire station is one of many support buildings in F Area that have been demolished.



Deactivation work in F Area is complete, with 235-F, F Canyon and FB Line being maintained in a safe surveillance and maintenance state. The final work is the deactivation of 211-F, which is expected to be finished in early 2007.

A major F Area undertaking is the 247-F Closure Project, in which a major radiological complex is being deactivated and demolished. The project was divided into manageable “zones,” which were analyzed and cleaned out zone by zone. Demolition was completed in March 2006.

247-F was comprised of five buildings, encompassing more than 124,000 square feet. Here, uranium stock was converted into a form suitable for Naval fuel. The facility operated from 1985-1989 and was shut down because its services were no longer needed.

In the remainder of F Area, 47 facilities were demolished by the end of 2006. These include facilities used for administration, operations support, storage and other support uses.

Contributed by Fran Poda, WSRC Public Affairs



The main building of the 247-F complex before demolition.



The 247-F complex at the end of 2005, near the end of demolition.